Docket 28959-7

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re:

Applicant: BRUMBOIU, Aurel et al.

Serial No.: 09/519,741 Group Art Unit: 1743

Filed: March 6, 2000 Examiner: CROSS, LaToya I

For: METHOD FOR DETERMINING THE CONCENTRATION OF GAS IN A LIQUID

Honourable Commissioner of Patents
and Trademarks,
Washington, D.C. 20231,
U.S.A.

Sir:

Applicant's agent has received the attached office action dated October 4, 2002. Applicant's agent notes that although claims 1 to 15 are under consideration by the Examiner, no reference is made in the office action to claims 5 or 12. In addition, claims 4, 7, 10 are mentioned only with respect to 35 USC 112, but not with respect to 102, 103 or allowability.

The Examiner's comments with regard to claims 4, 5, 7, 10 and 12 are earnestly solicited. The Examiner is invited to contact Applicant's agent to discuss the matter by telephone or to issue a substitute action.

Respectfully submitted,

Roseann B. Caldwell, Reg. No. 37,077

BENNETT JONES LLP
4500 - 855 - 2nd Street S.W.
Calgary, Alberta CANADA
T2P 4K7

(403) 298-3661

Date: Oct 22/02

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/519,741	03/06/2000	Aurel D. Brumboiu	28959-7	7977

7590 10/04/2002

Roseann B. Caldwell
Bennett Jones
4500 Bankers Hall East
855 - 2nd Street SW
Calgary, AB T2P 4K7
CANADA

EXAMINER	
CROSS, LATOYA I	
ART UNIT	PAPER NUMBER
1743	5

DATE MAILED: 10/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/519,741	BRUMBOIU ET AL.	
	Examiner	Art Unit	
	LaToya I. Cross	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 March 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-19* is/are pending in the application.

4a) Of the above claim(s) *16-19* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-15, drawn to a method for obtaining a correction factor for measuring a concentration of gas in a liquid, classified in class 436, subclass 181.

II. Claims 16-19, drawn to a system for controlling operation of a device for determining gas in liquid, classified in class 422, subclass 68.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II are related as process and apparatus for its practice. The inventions are distinct if it can be shown that either: (1) the process as claimed can be practiced by another materially different apparatus or by hand, or (2) the apparatus as claimed can be used to practice another and materially different process. (MPEP § 806.05(e)). In this case, the apparatus may be used in a materially different method such as in determining the presence of a an analyte.

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art as shown by their different classification, restriction for examination purposes as indicated is proper.

4. Because these inventions are distinct for the reasons given above and the search required for Group II is not required for Group I, restriction for examination purposes as indicated is proper.

5. During a telephone conversation with Roseann Caldwell a provisional election was made with traverse to prosecute the invention of group I, claims 1-15. Affirmation of this election must be made by applicant in replying to this Office action. Claims 16-19 are

withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

6. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Claim Rejections - 35 USC § 112

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Independent claims 1, 8, 11 and 14 are all directed to methods for obtaining a correction factor from measuring a concentration of gas in a liquid. The final step for each claim is to use the first and second function to generate the correction factor. The claims do not set forth any connection between the first and second functions and the correction factor. Applicants should incorporate a connector to set forth how one practicing the method would use the first and second functions to determine the correction factor. It is suggested that Applicant incorporate limitations such as those recited in claim 6 into the independent claims.

Claims 1, 6-8, 10, 11 and 14 recite a "first function" and "second function". It is unclear, however, what Applicants intend by "function". Further clarification is required.

The use of the phrase "less than about" in claim 4 is also indefinite.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claims 1-3, 6, 8, 9, 11 and 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 5,729,342 to Yokoyama et al (hereinafter Yokoyama et al) in view of US Patent 5,528,923 to Ledez et al (hereinafter Ledez et al '923).

Yokoyama et al teach a method for analyzing the concentration of gas, possibly containing gas bubbles. The method involves obtaining a reference spectrum for a known gas. The reference spectrum for the known gas is used to derive a sample spectrum for the gas in the sample fluid. See abstract. Data processing is used to determine from the reference spectrum and the sample spectrum, the concentration of gas in the liquid sample. To correct for the existence of bubbles in the liquid sample, a correction coefficient (correction factor) is used. See col. 3, lines 29-65.

Yokoyama et al differ from the instant invention in that Yokoyama et al compares absorbance spectrums, whereas Applicants compare solubility thresholds to determine the content of gas and a correction factor therefor. Both absorbance spectrums and solubility thresholds are measurable parameters that an ordinarily skilled artisan would have been able to determine. Ledez et al '923 teaches using gas solubility to determine the content of gas in a liquid sample. See col. 10, lines 10-15. Ledez et al '923 teach that gas solubility measurements allow for difficult gases, such as toxic and anaesthetic gases to be determined easily. In conducting the method of Yokoyama et al, it would have been obvious for one of ordinary skill in the art to measure the solubility of gas to determine its content in a sample because such would allow for a wide variety of gases to be determined, even those which have conventionally been difficult to analyze.

With respect to Applicants' "sufficient measurements", the ordinarily skilled artisan would have been able to determine when enough measurements would have been taken to have sufficient data to come to an accurate conclusion.

Therefore, for the reasons set forth above, Applicants' claimed invention is deemed to be obvious within the meaning of 35 USC 103, in view of the teachings of Yokoyama et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaToya I. Cross whose telephone number is 703-305-7360. The examiner can normally be reached on Monday-Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on 703-308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0661.

LIC
October 1, 2002

Jill Warden
Supervisory Patent Examiner
Technology Center 1700

FAX MESSAGE

BENNETT JONES

Examiner LaToya I. Cross
USPTO, Group 1743

Bennett Jones LLP
4500 Bankers Hall East
855 - 2nd Street S.W.
Calgary Alberta
T2P 4K7

Tel 403.298.3661
Fax 403.265.7219

FAX NO.	703-872-9310	FROM	Roseann Caldwell
PHONE NO.	703-308-0661	LAWYER NO 472	FILE NO 28959-7
DATE	October 22, 2002	Original Status - Retained on File	

This is the first page of 9

If all pages not received, call 403.298.3234 for assistance.

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